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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the matter of)

Redevelopment of Spectrum to)
Encourage Innovation in the)
Use of New Telecommunication)
Technologies)

ET Docket No. 92-9

COMMENTS
OF
CENTRAL POWER AND LIGHT COMPANY

Robert R. Carey
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Chief Executive Officer

Central Power and Light Company
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Dated: June 4, 1992

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To: The Commission

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OF
CENTRAL POWER AND LIGHT COMPANY

Pursuant to Section 1.415 of the Commission's Rules, Central Power and Light Company hereby respectfully submits its comments on the Notice of Proposed Rule Making (NPRM), FCC 92-20, released February 7, 1992, in the above captioned matter.

I. Introduction

Central Power and Light Company (CPL), a wholly-owned subsidiary of Central and South West Corporation, is an investor-owned utility supplying electric service to a 44,000 square-mile area of South Texas. CPL serves over 560,000 customers in 226 communities and the surrounding area. CPL also supplies a part or all of the electric requirements of five rural electric cooperatives and two municipal electric systems. The territory served by CPL, which has a population of approximately 1.9 million people, is bordered by the Gulf of Mexico on the East and by Mexico on the South and West.

The CPL microwave network was completed only last year after more than two years of construction. It consists of radio operating in the 960 MHz and 2, 6 and 18 GHz frequency bands and is about 600 miles long. The paths operating at 2 GHz, which account for one-third of the system, average more than **thirty miles long** and cross some very sparsely populated areas over fairly rugged terrain. This network carries voice and data necessary for the real-time monitoring, control and operation of our generation, transmission and distribution facilities. Microwave is **the** medium of choice to provide both **reliable and cost-effective** communications throughout our service territory.

II. The 1850-2200 Mhz Band Should Not Be Reallocated For The Creation of A Spectrum Reserve

CPL opposes a reallocation of spectrum in the 1850-2200 Mhz band for the creation of a spectrum reserve for development of emerging technologies. As noted above, CPL depends heavily on its 2 GHz microwave to provide vital communications required for the **safe** and **reliable** operation of our electric system. These communication paths are especially critical during severe weather conditions and were designed with these factors in mind. If forced to replace this portion of the system with 6 GHz equipment, we would have to shorten path lengths, requiring additional stations, in order to provide the same level of **reliability** during severe weather.

With the significant number and **variety** of requests for spectrum pending before the Commission, as indicated in the NPRM, the chance that a chosen "home" frequency band would **adequately** suit any and all requestors is **extremely** small. CPL recommends the Commission focus on reserving smaller blocks of spectrum, in several different frequency bands more **ideally** suited for particular applications, rather than reserving one large, single block of spectrum, causing great disruption among many thousands of existing users, and forcing new users to conform to it. The Commission should foster research and development by allocating spectrum in higher bands not currently being used. Government bands should be included in the search for this reserve spectrum.

III. Other Media Are Not Reasonable Alternatives

For other communications media to be reasonable alternatives to fixed microwave, they must provide similar or superior performance at a competitive cost. Fiber as an alternative can offer more bandwidth, but does so at a much higher cost, with no provision for quick relocation, and requires more advanced repair techniques. CPL agrees with the Office of Engineering and Technology (OET) staff report that fixed microwave offers a significant cost savings over the deployment of fiber for long distances, especially when right of way problems exist or the fiber route is through rocky or rough terrain. As noted earlier, this accurately describes part of our service area where we use 2 GHz microwave.

CPL participated in a corporate-wide pilot test of VSAT satellite communications systems, and determined this alternative was not economically or technically feasible. Satellite costs were found to be **very** expensive in all but low-density applications. Critical electric system components are monitored every two seconds via our microwave system, which is not possible with satellite technology.

IV. Cutoff Date Inappropriate

To mandate an immediate halt to the use of the 2 GHz spectrum on a primary basis is not appropriate. Degrading a licensee's status to secondary upon the issuance of a new or modified license at this point in time has severe repercussions. Many plans and budgets

were founded over the past few years with full use of this spectrum in mind. Without the ability to capitalize on the inherent flexibility of microwave communications, the utilization of our embedded system is severely limited. The Commission should allow existing users to fully use their 2 GHz investment, on a primary basis, for at least ten years from the effective date of a ruling. This would include modifications and new installations.

V. Serious Doubts About Spectrum Sharing

Certain entrepreneurs claim that Personal Communications Services (PCS) can share the 2 GHz band with fixed microwave by using spread spectrum or other techniques. CPL is highly skeptical of these claims of which much documented evidence to the contrary exists. We strongly urge the Commission to review these claims carefully before authorizing PCS on a band-sharing basis.

The NPRM proposes a **co-primary** relationship between new and existing users, but does not define this term. If neither user is **secondary**, and hence not obligated to resolve interference issues, neither party has the responsibility, or authority, to resolve these issues in a timely manner. Therefore we view **co-primary** as unacceptable as it is functionally equivalent with **secondary**.

VI. Action Necessary If 2 GHz Band Is To Be Reallocated

If the Commission continues with the reallocation of the 2 GHz band, CPL believes the Commission **must** grant indefinite primary status for all existing 2 GHz microwave systems and permit system modifications, relocations and expansions under the same status. Because of our reliability requirements, co-primary or secondary status is simply **unacceptable**.

Before proceeding, the Commission must assure that:

1. **Reliable exclusive-use replacement spectrum is available.** We believe this requires extensive frequency coordination studies and research. The OET report has oversimplified the problems that existing users will have to solve in order to replace their systems. A reallocation of the government spectrum in the 1.71-1.85 GHz band should be pursued immediately.
2. **Existing users receive adequate compensation.** This need is discussed in the NPRM, but without specificity. There must be definite structure to this process, and a method of arbitration for those disputes that arise.
3. **Adequate time is granted to make such a transition.** CPL believes that 10 years should be the absolute minimum time period, with 15 years being more appropriate. It is purely optimistic, if not unreasonable, to assume that replacement facilities could be planned and constructed in a lesser period of time.

4. **Installation requirements are established for the new Emerging Technology licensees.** As the Commission's rules demand of existing users, so should they demand of new users to meet specific time constraints and reporting requirements regarding the construction and operation of their proposed systems.

VII. Conclusion

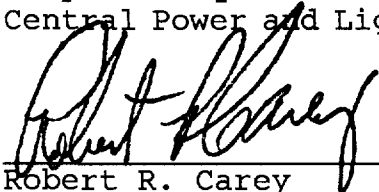
CPL feels the Commission acted without thorough investigation and analysis as to the need for emerging technologies to reside in the 1850-2200 MHz band, nor to the adequacy of other proposed bands to support the requirements of existing 2 GHz licensees. CPL sees little reason why emerging technologies and PCS cannot operate in one of several other frequency bands and maintains no fixed microwave licensee should be forced from the 1850-2200 MHz band. CPL urges the Commission to consider other possible "homes" for future users besides the 2 GHz band. We believe the OET study has oversimplified some very complex, technical issues that deserve more detailed study.

If the Commission maintains this band is the best choice, we encourage the Commission to extend the exemption given to state and local governments to include power utilities for the same reasons the Commission used to justify the government exemptions, most importantly **public safety**. To be meaningful, however, this exemption must allow for modifications and improvements to existing systems without relegation to secondary status.

Wherefore, The Premises Considered, Central Power and Light Company respectfully requests the Commission to consider these comments in acting on the subject Notice of Proposed Rule Making.

Respectfully Submitted,
Central Power and Light Company

By:


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June 4, 1992